

ABSTRACT:

ROTOR AND METHOD FOR WELDING AN ELEMENT OF A ROTOR

A method of forming a rotor comprises the step of welding a rotor element. The weld metal comprises: from 0.04 to 0.1% carbon, from 0 to 0.5% silicon, from 0.1 to 0.6% manganese, from 0 to 0.01% sulphur, from 0 to 0.03% phosphorous, from 1.9 to 2.6% chromium, from 0.05 to 0.3% molybdenum, from 0.2 to 0.3% vanadium, from 0.02 to 0.08% niobium, from 1.45 to 2.1% tungsten, from 0 to 0.03% nitrogen, from 0.0005 to 0.006% boron and from 0 to 0.03% aluminium. The rotor element may be formed from steel which comprises from 0.15 to 0.35% carbon, from 0 to 0.3% silicon, from 0.2 to 1% manganese, from 0 to 0.03% sulphur, from 0 to 0.03% phosphorous, from 0.3 to 1% nickel, from 0.7 to 1.50% chromium, from 0.5 to 1.2 % molybdenum, and from 0.2 to 0.4% vanadium.